

Prime Factorization

Use a factor tree. Write the prime factorization.

1. 20 _____ 2. 75 _____ 3. 63 _____

4. 56 _____ 5. 18 _____ 6. 54 _____

Write the prime factorization in exponent form.

7. 16 _____ 8. 24 _____ 9. 28 _____
10. 45 _____ 11. 40 _____ 12. 36 _____

Mixed Applications

13. If $\frac{1}{4}$ of a group of students have math homework and $\frac{1}{5}$ have science homework, what is the least number of students in the group?

14. A number f is a prime factor of both 12 and 21. What is f ?

MATH CONNECTION

15. What is the LCM of a pair of numbers whose prime factorizations are $2^2 \cdot 3 \cdot 5$ and $2 \cdot 3^2$?

16. The LCM of a pair of numbers is 60. The prime factorization of one of the numbers is $3 \cdot 5$. What is the prime factorization of the other number?
